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Sr. V.P. Sales and Service

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President / C.O.O.

## Moving into the future

### Getting to know the Bently Nevada management team – Part 4



**Richard A. Chapman**

is Executive Vice-President / General Manager. Rich has been with Bently Nevada for 26 years in various positions within sales, service, and engineering. He presently oversees the day-to-day operations of the Company, with all department vice-presidents/senior managers reporting to him.



**Steven W. Riggs**

is Senior Vice-President, Sales and Services. Steve has been with Bently Nevada for 30 years and is responsible for all global sales and service activities through a network of 82 technical support locations in over 40 countries.



**Randall R. Chitwood**

is Vice-President, Engineering. Randy has been with Bently Nevada for 20 years and is responsible for all hardware and software product development worldwide, as well as product research initiatives.



**Steven J. Sabin**

is Corporate Marketing Manager. Steve has been with Bently Nevada for 10 years and is responsible for macro market understanding functions and global product/company promotional functions.

In 1998, ORBIT magazine interviewed Bently Nevada's owners, Donald and Christopher Bently, as well as Bently Nevada's president, Roger Harker. These interviews provided insight into the long-range goals and vision for the Company. In this issue, we'd like to continue by allowing some of the people who are responsible for implementing that vision and mission to talk about their activities and how they'll move the Company forward consistent with our vision. ORBIT magazine recently spent some time with Executive Vice-President Richard Chapman and several of his key department heads in Engineering, Sales and Service, and Marketing. Here's what they had to say...

**The Bently Nevada mission statement – "Helping you Protect and Manage all your Machinery" – how important is it to the Company?**

**Chapman:** It's what we do to add value for our customers and to keep us focused on what we do for a living. What could be more important than that?

**Riggs:** So many mission statements these days are a collection of platitudes that provide little real direction to employees, and no real communication to customers and other "stakeholders." The fact that virtually anyone in the Bently Nevada organization can sit down with a customer and explain the meaning and relevance of



**Richard A. Chapman,**  
Executive Vice-President /  
General Manager

each word in our mission statement is a powerful statement in itself. Our customers have come to expect direct, clear communications from us and openness and honesty in all of our dealings with them. Our mission statement, straightforward, clear, and tangible, is one more example of this aspect of our culture.

#### Where did it come from?

**Chapman:** It has evolved over time and we finally articulated it about five years ago in the succinct statement that appears on our business cards. We've found that expressing what we do in terms of "protection" and "management" communicates very well – both with customers and internally to the company. These categories work just as well for our hardware/software products as they do for our services.

#### What key initiatives and activities are being driven by the mission statement?

**Chapman:** Changing customer needs make it clear that it is no longer sufficient to only help, or to only protect, or to only manage, or to only focus on the vital few machines. A significant initia-

tive in the Company at present is the integration of these capabilities into systems and services that work together more tightly. There are three other key initiatives that flow directly out of the words in the mission statement: First is "Helping you...." It conveys our substantial commitment to enhanced service offerings – to go beyond just installing and repairing our products by moving us into project management, system integration, turnkey machinery management, and other capabilities expected of an engineering services company. Second is "protect and manage." It speaks of the need for us to

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**Richard A. Chapman,**  
Executive Vice-President,  
General Manager

help customers manage their machinery, not just protect it. Third is "the little red all" that appears in our mission statement. It speaks of our drive to provide solutions for all classes of machinery in our customers' plants – small, large, critical, general-purpose, rotating, reciprocating – all of it.

**Riggs:** Renaming the Machinery Diagnostics Services (MDS) department the Machinery Management Services (MMS) department is one example of the mission statement directly driving change within Bently Nevada. MDS had come to be synony-

mous with helping customers solve machinery problems after the problems surfaced – a reactive model of addressing machinery where the MDS engineer would travel to the site and analyze the problem with a portable tool, such as ADRE®. "Machinery Management," on the other hand, is a proactive model. It focuses on managing machinery assets and knowing their condition at all times, primarily via online tools, with the engineer often located off-site.

**Sabin:** Marketing has an important – and fun – role in all of this: getting the message out. We are inherently the "mouthpiece" of the Company – we provide the communications to our own salesforce – getting them "fired up" about our products and initiatives. We also provide the communications to our customers – and perhaps even more importantly, from our customers. Much of our mission reflects exactly what we've been hearing from customers: "Help us by providing more services; address all our machines – not just a few; and teach us how to be proactive by managing our machinery, not just protecting it."

*"Customers not only want to select a single vendor for particular types of products, they also want to do business with companies willing to take on considerably more scope."*

**Richard A. Chapman,**  
Executive Vice-President,  
General Manager

Let's talk a bit more about  
the first part of the statement –  
"Helping you..."

**Riggs:** I think the key here is the tremendous flexibility that Bently Nevada has developed, which allows our customers the freedom to determine exactly how much and what type of "Help" they want. For customers who have determined that the selection, installation, operation, maintenance, etc., of the machinery protection and management systems is something that they want as a core competency, we have a comprehensive curriculum of

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**Steven W. Riggs,**  
Senior Vice-President,  
Sales and Services

training courses on everything from gapping probes to optimizing a Decision Support™ system (Machine Condition Manager™ 2000). For customers who have decided that, while machinery protection and management is a critical task, it is not something they need as a core competency, Bently Nevada can be a complete turnkey systems supplier, handling all aspects of system engineering, selection, installation, and optimization. We can be

responsible for long-term system maintenance as well as supplying the mechanical engineering expertise to manage the rotating and reciprocating machinery. We can integrate our systems with other systems and can provide support for networked systems. We can work with the machine manufacturer to help them provide remote machinery diagnostics/management support – or just about anything in between.

**Sabin:** Customers aren't looking for suppliers to provide "components" anymore – they're looking for suppliers that can spec, deliver, install, integrate, and optimize a fully-functioning system – manage the whole project and provide a result, not just a box of hardware and software. Although not all customers are divesting themselves of the staff to provide project management, machinery diagnostics, or day-to-day data collection and machinery management tasks – many are. It is an absolutely perfect opportunity for us to increase the scope of what we provide to customers. It's a case of our core competencies matching up with their exact needs for services. The timing couldn't be better.

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**Steven W. Riggs,**  
Senior Vice-President,  
Sales and Services



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Senior Vice-President, Sales and Services

Are we actually doing this or just talking about it/preparing for it?

**Riggs:** In this decade, we have completed 23 million USD in projects in North America alone – projects that all included selection of protection systems, system design, installation, commissioning, and training the end-users. Many of the projects also included system integration with control and information systems, optimization of the system, and remote or on-site diagnostics support. We have long-term system management support contracts with several customers.

*Note: A more detailed look at our engineering services capabilities, with specific examples, will appear in the next issue of the ORBIT.*

**Chapman:** We are investing heavily in providing new tools for our people to provide better service at lower cost. Our culture has been focused around manufacturing. We are implementing SAP's R/3 Enterprise Resource Planning system with an overall service business model. Our existing business system is MRP2-based, which will become a subset of the new model. Providing world-class global customer service is the direction we are heading.



We know we can do it because of our world-class attainment of MRP2.

### Is service a core competency of Bently Nevada?

**Chapman:** Absolutely. We have people all over the world who spend more of their time at customer sites than in our own offices. We are quite proud of our people and their attitudes toward helping customers achieve their objectives. In many cases, we have become an integral part of their organizations.

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**Randall R. Chitwood,**  
Vice-President, Engineering

**Riggs:** It's more than a core competency – service is part of our corporate culture founded on our core value of "care of our customers." Service has been an integral part of BNC since the beginning. Don Bently personally provided much of that early support service, both for products and machinery diagnostics. He set a standard and an example that we continue to follow today. BNC has a bias towards service. We are very proud of the Control magazine Readers' Choice Awards we have received every year since their inception. In 1999, we received 77% of the vote.

Let's move now to another part of the mission statement, "...all your machinery." What is the significance of the "little red all" in our mission statement?

**Riggs:** The market's perception that we're only focused on "the big machines" is, in part, a result of our



**Randall R. Chitwood,**  
Vice-President, Engineering

success – success with protection and management systems for high-speed critical machines with fluid-film bearings. We have focused so intensely on "high-speed critical machine" understanding and product development in the past that all of the good work we have done with respect to reciprocating compressors, slower speed machines, rolling element bearings, etc., has been overwhelmed. Of course, we have sup-

*"Our customers need the equivalent of Microsoft® Office for their machinery."*

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plied plantwide systems, which have included protection and management for all types of rotating and reciprocating machines, in hundreds of different installations. However, for many customers, we are so closely associated with superior products, services, and methodologies for big, high-speed machines that they simply do not recognize us as having capabilities beyond that. The "little red all" on our cards is a

reminder to keep the whole plant in mind, not just what we have become famous for.

**Chitwood:** The "little red all" is also an effort to get the word out about our existing products like REBAM®, the Dynamic Power Transducer, and Trendmaster® 2000, to name a few.

*"Shortly after initial release of our System 1 software, we'll be adding total and seamless integration of this Decision Support™ functionality – and, we intend to do it for all machinery – not just our traditional emphasis on turbomachinery."*

**Randall R. Chitwood,**  
Vice-President, Engineering

**Sabin:** The market opportunities for a company that can really do "all" machinery through an integrated product line is huge. Customers clearly need and want an integrated tool.

**Chapman:** Customers not only want to select a single vendor for particular types of products, they also want to do business with companies willing to take on considerably more scope. We are responding to that in many ways,

*"...we make the world's best on-line machinery management systems – no exceptions."*

**Randall R. Chitwood,**  
Vice-President, Engineering

from more types of engineering services to developing new products, to supplying third-party devices. We are expanding our "comfort zone" to make things simpler for our customers.

*"Customers aren't looking for suppliers to provide 'components' anymore – they're looking for suppliers that can spec, deliver, install, integrate, and optimize a fully-functioning system – manage the whole project and provide a result, not just a box of hardware and software."*

**Steven J. Sabin,**  
Corporate Marketing Manager

#### How is the "little red all" specifically affecting engineering?

**Chitwood:** At Bently Nevada, we have dramatically increased our annual investment in Product Development over the past 3 years. Much of this investment is directly solving needs not normally associated with our "traditional" market. Beginning this fall with the release of the System 1™ software and our newest portable diagnostic and data collection device, Snapshot™ for Windows® CE, our customers should expect strong product support for all of their machines. And the engineers? They are excited about these new products and the value they will provide. I fully expect System 1 to be the "killer application" for asset management for several years.

#### How does our competence at building probes/monitors translate to what is

#### being developed for "all your machinery" – software and portable instruments, for example?

**Chitwood:** We have a staff of very experienced electronics, mechanical, and software engineers. We are really very good at producing world-class products in a timely manner.

**Chapman:** Manufacturing is a core competence at Bently Nevada as well. Because we manufacture all of our products, we are able to integrate test engineers and process engineers right into the design teams. Having outstanding manufacturing team members next to the design engineers is mandatory to design and manufacture the products our customers expect from Bently Nevada for all of their machinery.

*"Much of our mission reflects exactly what we've been hearing from customers: 'Help us by providing more services; address all our machines – not just a few; and teach us how to be proactive by managing our machinery, not just protecting it.'"*

**Steven J. Sabin,**  
Corporate Marketing Manager

**Chitwood:** We know it is equally important to build the right products with the right features. To make sure we get this right, we involve our research (BRDRC) and service groups in our product definition process. After all, they are users of many of our products. We have also added a definition phase that puts our design teams in direct contact with our best customers.



**Steven J. Sabin,**  
Corporate Marketing Manager

This is to assure that our designers really understand our customers' needs and business processes.

#### Why is System 1 such a significant part of the "little red all"?

**Chitwood:** Our customers need the equivalent of Microsoft® Office for their machinery. The real power of MS Office is its integration. It allows users to use the right tool and makes it easy to have all of the tools. This integration not only makes the tools easy to use, but also helps us develop them. System 1 is a platform that Bently Nevada can build on for the next decade. It integrates all of our current functionality into a single framework. This framework will allow us to "snap" wide functionality into it via modular components. Initial release will support our new Snapshot™ for Windows® CE portable data collector. The next releases will rapidly focus on supporting some of our best data acquisition devices – such as TDXnet – with other functionality & hardware support occurring every year.

#### Pretty ambitious – what makes you think Bently Nevada can succeed?

**Chitwood:** Well, to start with, we make the world's best on-line machin-

every management systems – no exceptions. We are able to process many parallel high-speed transducers and cost-effectively get this data to our Decision Support™ product, Machine Condition Manager™ 2000, or to an engineer located anywhere in the world. There are some other on-line and off-line products out there that try to compete with our Data Manager® 2000, but we are the standard that others are measured against. We have already solved the toughest engineering problems associated with the on-line system. Now we are working towards expanding to include off-line functions like Snapshot™ for Windows® CE, and on-line data that doesn't require such high-speed acquisition, such as data from Trendmaster 2000 or Performance Manager™ 2000. We also have global development resources located in technical centers around the world. For example, we take great pride in our software development team in Mumbai, India. These engineers are very professional, quality-oriented, and great to work with. India has a strong core competence in software engineering, and we have been doing successful development there for almost 10 years.

**Let's switch gears once again and talk about the remaining phrase in the mission statement – "Protect AND Manage."**

**Chapman:** This is basically an educational issue – getting the message out about the new "rules" for our customers to get – and stay – competitive. Protection alone is not enough.

**Sabin:** The little word "and" - our mission talks about protecting *and* managing your machinery – has been a challenging message to deliver. In some ways, we've been victim to our own success. We are recognized as

being very, very good at providing transducers and monitors for protecting machinery and teaching the world that protecting machinery is necessary. Unfortunately, some people think that is *all* that we do. Now, however, we have to bring another message: protection is necessary, but not sufficient – you must also manage your machinery.

**Not everyone will be familiar with the terminology "machinery management." Could you elaborate?**

**Sabin:** Some people call it "condition monitoring," others "predictive maintenance," still others have different names. At Bently Nevada, we use the term "machinery management." The basic idea, is that, whatever you call it, you use software products to trend data and reduce it into meaningful information, so that you can proactively understand your machine's condition at all times and make informed operating and maintenance decisions.

This goes beyond just basic vibration data - it includes detailed rotor data like 1X amplitude and phase, shaft radial position, NOT 1X data, 2X amplitude and phase, and other parameters. Process data needs to be included as well, so you can correlate it with machinery information and understand the interaction. Finally, machinery management goes beyond just the data – it involves the use of embedded intelligence to reduce the data into actionable information™. We call these Decision Support™ systems, and they are very important if you don't want to waste time reviewing data on good machines. It's the 80/20 Rule.

**Note:** see the article on Pareto on page 49 for more information on the 80/20 Rule.

Good managers anticipate and direct things toward a desired result – they don't just sit back with a hands-off approach and let things go where they may. Machinery management is analogous. As important as they are, our protection systems don't really act until they are called upon to protect the machine – after an alarm level has already been violated. Our machinery management systems, on the other hand, let you take action long before an alert light on the monitor comes on. Our president, Roger Harker, refers to this as "managing below the alert level." I like that. It's a great phrase to succinctly capture what we're doing.

**Are you succeeding with this message, and have you been able to measure the success?**

**Riggs:** Ten years ago, we were happy if 5% of protection systems were supplied with some type of on-line software system for machinery diagnostics/management. Today, that figure is approaching 40%, and it is growing. Very simply, a "minimum system" used to be transducers and monitors, but now it is being redefined. "Minimum system" now means transducers, monitors, and on-line software. We're also finding many customers that need to address general-purpose machinery want more than just a portable data collector – they also want an on-line environment to cover selected "non-critical" machines. The market demand for this is increasing as customers apply automation to a larger proportion of their process and machines. System 1 brings this all together under a single umbrella.

**Sabin:** The market itself has helped tremendously. Many of our end-user customers are in commodity businesses – gasoline, oil products, and electricity.

Competition is intense and it's global. Differentiation is difficult, so costs have to be managed very aggressively. Mechanical equipment, such as rotating machinery, is one of the single biggest opportunities for reducing costs. Not only can customers reduce maintenance costs when they use machine condition information from one of our systems, but they can better ensure that their machinery is available as well. When market opportunities present themselves to our customers – like the ability to manufacture and sell gasoline or ethylene or electricity during periods of peak demand – this can mean the difference between a profitable year and an unprofitable year. The market recognizes this – just ask yourself how many times you've heard the words “asset management” in the last 12 months – and you know that this topic is of primary concern.

#### Where next?

**Chapman:** Integration and “all your machinery” is great – it's what System 1 is all about. However, the real needs are still information-related, not data-related. Our customers need “all the data” to make good decisions, but a system that can reduce the data into information is clearly the new paradigm. Knowledge-based “expert” systems are rapidly moving from “novelty” to “business necessity,” and we're leading the charge.

**Chitwood:** Shortly after initial release of our System 1 software, we'll be adding total and seamless integration of this Decision Support functionality – and, we intend to do it for all machinery – not just our traditional emphasis on turbomachinery.

**Sabin:** In the near future, we believe just as many plants will be operating with advanced Decision Support tools

for their machinery as are currently using advanced control for their process automation. It's really inevitable since the competitive pressures on our customers show no signs of relenting, and the plants with the best access to information – not just data – will win.

**The four of you represent combined experience of over 85 years – each of you has seen the Company grow and mature. What is it about this chapter in Bently Nevada's history that you find most exiting – that you are most passionate about?**

**Riggs:** What is most exciting to me now is the changing way in which Bently Nevada is being viewed by our customers. We are being treated not as a seller of parts, but as a partner whose knowledge can make a substantial difference to the success of our customers' businesses. The old model of adversarial, win-lose relationship between buyer and seller is giving way to a model where, unless both parties can win, there is no point in doing business. This is not only satisfying, it is efficient.

**Chitwood:** We are blessed to have a visionary founder and owner, Don Bently. His passion for the business and our customers is still exciting to me – the new Bently ServoFluid™ Control Bearing he's invented, and the vision he has for how this will change the industry, is just one example. This passion is catching and is a great reason for our success. When you ask what products I am most passionate about, it is impossible to choose – we are developing so many new products right now. Many are not yet announced. From System 1, to the new 3300XL Proximity Transducer System, we have products that really support our mission

“Helping our customers protect and manage all their machinery.”

**Sabin:** I'm passionate about all these things – and I love what I do for a living. It is still fun to come to work every day. I think what is most exciting to me is the “atmosphere of expectancy” I feel in the Company. We are all expecting good things to happen because we are growing our product line and service capabilities so aggressively. I don't think I could ask to work with a better team of people who are all committed to the same goals.

**Chapman:** What I'm most excited about? It would have to be the way our people at all levels are constantly cooperating and pulling together. This is very gratifying to all of us and allows us to focus our time and energy where it belongs – with our customers. After all, without them, we wouldn't have anything meaningful to do.

***Note:** Another interview will appear in the 1st quarter 2000 ORBIT. It will feature other members of the Bently Nevada executive management team with responsibilities for Finance, Quality Assurance, Information Systems, and Manufacturing.* 